Data Visualization with R (ggplot2) vs. Matlab

	R (mainly ggplot2)	Matlab
Basics		
Import Dataset	df = read.csv('StudentsPerformance.csv')	T = readtable('StudentsPerformance.csv')
Column Names	>> colnames(df) [1] "gender" [2] "race.ethnicity" [3] "parental.level.of.education" [4] "lunch" [5] "test.preparation.course" [6] "math.score" [7] "reading.score" [8] "writing.score"	>> T.Properties.VariableNames {'gender'} {'race_ethnicity'} {'parentalLevelOfEducation'} {'lunch'} {'testPreparationCourse'} {'mathScore'} {'readingScore'} {'writingScore'}
Extract Data	Column: df$lunch; df['lunch'] Dataframe: df[1:3, c('lunch','math.score')] Filtering rows: df[df$math.score < 50,]	Column: T.lunch; Table: T(1:3, ["lunch","mathScore"]) Filtering rows: T(T.mathScore<50,:)
Convert Type	as.factor(df$gender)	categorical(T.gender)
One Variable		
Histogram	ggplot(df,aes(math.score))+ geom_histogram(bins=30, alpha=0.6, fill='cyan', color='blue')	histogram(df.mathScore,30,'FaceAlpha',0.6, ... 'FaceColor','cyan','EdgeColor','blue')
Bar plot (counts)	ggplot(df,aes(gender))+ geom_bar()	histogram(T.gender)
Density Plot	ggplot(df,aes(math.score))+ geom_density()	histfit(T.mathScore)
QQ-plot	ggplot(df)+ geom_qq(aes(sample=math.score))	qqplot(T.mathScore)
Boxplot	ggplot(df,aes(math.score))+ geom_boxplot() ggplot(df,aes(math.score, race.ethnicity))+ geom_boxplot() (By race.ethnicity)	boxplot(T.mathScore) By race_ethnicity: boxplot(T.mathScore, T.race_ethnicity)
Two Variables		
Bar plot	ggplot(df[1:3,], aes(1:3, math.score))+ geom_col()	bar(1:3, T.mathScore{1:3})
Line plot	ggplot(df1, aes(Date,Open))+ geom_line()	plot(T1.Date, T1.Open)
Scatterplot	ggplot(df,aes(math.score,reading.score))+ geom_point(color='blue', shape='.')	scatter(T.mathScore,T.readingScore, 'blue', '.')
Heatmap	ggplot(df,aes(math.score,reading.score))+ geom_bin2d()	heatmap(T,'mathScore', 'readingScore')
Other		
Parallel Coord	library(GGally) ggparcoord(df, columns=6:8,alpha=0.4)	parallelplot(T(:,6:8))
Map	library(ggmap) ny_map <- get_stamenmap(bbox = c(left = -74.2591, bottom = 40.4774, right = -73.7002, top = 40.9162), zoom = 10, maptype = "toner-lite") ggmap(ny_map) + geom_segment(x=-73.9857,y=40.7484, xend=-74.1111, yend=40.7588,color='blue')	geoplot([40.7484,40.7588], ... [-73.9857,-74.1111],'g-*') geolimits([40.4774, 40.9162], ... [-74.2591,-73.7002])
Labels & Title	ggplot(df,aes(math,,reading))+geom_point() + labs(x='math',y='reading',title='scores distribution')	xlabel('math') ylabel('reading') title('scores')

For more information of plotting with Matlab, please refer to https://www.mathworks.com/help/matlab/creating_plots/types-of-matlab-plots.html